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(54) Title: PROCESS FOR PRODUCING VITAMIN C

(57) ~~Abstract~~ The present invention relates to a process for the production of vitamin C from L sorbosone using an aldehyde dehydrogenase which is isolated from Gluconobacter oxydans DSM 4025 (FERM BP-3812), said enzyme having the following physicochemical properties: (a) molecular weight of $150,000 \pm 6,000$ Da or $230,000 \pm 9,000$ Da (consisting of 2 or 3 homologous subunits, each subunit having a molecular weight of $75,000 \pm 3,000$ Da); (b) substrate specificity as active on aldehyde compounds; (c) Cofactors are pyrroloquinoline quinone and heme c; (d) Optimum pH between 6.4 and 8.2 for vitamin C production from L-sorbosone; and (e) as inhibitors Co^{2+} , Cu^{2+} , Fe^{2+} , Ni^{2+} , Zn^{2+} , monoiodoacetate and ethylenediamine tetraacetic acid. The process is performed in the presence of a suitable electron acceptor and the vitamin C isolated from the reaction mixture.